the CANNON

U of T Engineering Society
Volume VI, No. 2

Design a Bridge
All About Committees
Engineering Dedicated to VAXs

The Enginering Society and Molson's present

One fun-filled Saturday

THE ANNUAL CAR RALLY

sign up in Eng Soc on Wednesday, October 12

Admission $10.00 per car

plus

reduced Oktoberfest admission of $3.00 for participants

followed by

OKTOBERFEST '83

with

George Kash and the Oktoberfest Express

Saturday, October 22

8:00 pm

Wetmore Hall

Admission $5.00

the CANNON

ARCHIVES

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THE CANNON is a publication of the University of Toronto Engineering Society. It is published monthly to announce Eng Soc events, discuss faculty and university matters, and present technical information of interest to Engineering undergraduates. Subscriptions are available, call Ella at 978—2917. Anyone interested in helping with *THE CANNON* is most welcome.

THE CANNON encourages submissions; please type or write legibly. Deadline for articles and letters for the next issue is Tuesday, October 25. Comments on *THE CANNON* or articles appearing in it are appreciated. The editor reserves the right to edit for brevity.

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A Terminal Case
This is the first year that the Faculty of Engineering will have fully autonomous computer facilities serving all its students. Find out what VAX, UNIX and ECF will mean to you. page 6

Engineering Society News
Don't plan your October calendar until you see what is being planned for you! page 8

Attention Designers
The UTCSCE Club and the Department of Civil Engineering are working together to expand the Model Bridge Competition. This year the contest is open to all undergraduates so details of the event and competition rules should certainly be of interest. page 10

Take a Musical Lunch Break
The Engineering Alumni Association held many successful concerts last year and plan to continue that tradition. The first performance is later this month and will feature the new Skule Stage Band. page 12

On the Cover
Both frosh and upperclassmen can enjoy Orientation!

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Editor's Comments

On the pages of this issue of *the Cannon* you will find mention of many more time-consuming activities than any one person could ever attend. The problem of course is choosing between them and more importantly the effects these choices will have.

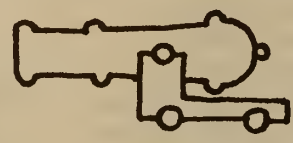
The one unavoidable item is undoubtedly the time each and every student will spend at the Engineering Computing Facility. As all third and fourth year students will agree, the VAX computers (described on page 6) are an immense improvement over the antiquated keypunch system. Unfortunately at the time this issue went to print, the entire faculty was struggling since there were only 40 terminals and one VAX (of the three that will eventually be installed) trying to serve the needs of 1400 students. For details of what has been done to slightly ease the load, turn to the President's Message.

Computers will certainly be a part of each of our engineering jobs but there is obviously more to engineering than just computing. One component of great interest to engineers is design and you have several opportunities to practice this skill outside the classroom. There is a bridge building competition with strict rules and specifications (see page 8) plus groups designing a high mileage car and a human-powered vehicle.

Of course, one must never forget the purely social activities. Everyone has to escape the books once in a while and this October there are some very attractive alternatives. October 15 is Homecoming which means more this year than just a parade and a football game (not that those two aren't a lot of fun). The extra element of this year's Homecoming is the concert featuring *The Spoons* to be held in the evening following the game. If the music of *The Spoons* isn't quite your style, or even if it is, how about a polka? Oktoberfest is the place to practice that dance and it is scheduled for October 22. Earlier the same day, to work up a good thirst for the pub, you can try your deciphering and navigating skills at the Car Rally.

The question still remains: Since my time is limited, which of these events is most worthwhile? Actually, the underlying question is simply: Why am I here at university? Most answers would likely mention learning, fun and a fulfilling job after graduation. However, we all know that the job situation is tight. (Incidentally, this month both the Professional Development and Employment Committees are offering you a chance to learn more about the job outlook). Considering the tight economy, you will undoubtedly learn that studying alone won't get you a job. The learning experience involves a combination of the three categories mentioned above (course work, engineering education outside the classroom and, very importantly, social aspects). The well-rounded individual is the one the company will hire and only you can make yourself that well-rounded individual.

The answer to the problem of too many alternatives seems to be: try to get involved in all three areas of learning not just for the fun of it nor for the job when you finish. Look at university as your special chance to enjoy these activities then do it!



Letter to the Editor

I take exception to the letter in the September issue of *the Cannon* regarding funding for the Ontario Engineering Design Competition (OEDC). The writer missed the point entirely by concentrating on how wonderful the Alumni are (and indeed they are) instead of determining why some OEDC participants complained in the first place.

The fact of the matter is that the University, Faculty, Engineering Society and the Alumni provided no financial support to our OEDC participants last year to assist with their design projects. Most other universities covered not only entry fees and costs, but also supplied funds to offset the cost of putting the projects together.

The fact that the Alumni are making $2000 available this year to competitors, when the same money was not available last year, only lends credence to the belief that last year's wrong has now been righted. The Alumni are to be commended. However, the issue of University, Faculty and Eng Soc backing still remains.

If U of T and APSC want engineering students to represent them at future conferences and competitions, they should assist their students like other universities do.

Paul Shindman
Mech 8T4

Are you looking for a career, and graduating with a degree in:

ENGINEERING

or

SCIENCE

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Procter & Gamble is a leading manufacturer of consumer goods world-wide. In Canada, we have facilities in Hamilton, Belleville, Brockville and Pointe Claire. We have positions available in Product Development, Manufacturing and Engineering

We will be interviewing at the University of Toronto on November 14th and 15th, 1983.

If you are a dynamic individual, looking for a career with a rapidly expanding organization, please see your Placement Service for more information. Application deadline is:

Monday October 17th, 1983

Engineering Computing Facility Expands

Keypunches Won't Be Missed

Jimmy Chui
Eng Sci 8T4
and
Rayan Zachariassen
Eng Sci 8T4

Walking past SF1019 you will hear a swoosh reminiscent of a giant vacuum cleaner. A few steps later you might turn around to investigate the noise, and you are confronted by a glass-enclosed monster with bright green eyes (see how senior students aren't all serious). Not to worry. The beast is part of the new and growing Engineering Computing Facility (ECF), and what you heard was from the fans and air conditioning needed to keep the computer cool.

Eventually, ECF will consist of three computers (known as ECF/A, ECF/B and ECF/C), all VAX-11/780's from Digital Equipment Corporation.

For the technically oriented, ECF/A is a Purdue-style dual CPU (Central Processing Unit) VAX (only the second of its type in the country) with 4 megabytes main memory and about 700 megabytes of online disk storage. The machine has been up and running since last summer (with single CPU until this August).

The ECF/A machine has been used to teach first year introductory computing courses to engineering students. During the summer the machine has been used for research by people in APSC. Incidentally, ECF/A's second CPU is intended to support Very Large Scale Integration (VLSI) research.

The ECF/B machine is a transfer from the University of Toronto Computing Services (UTCS). It will be used for higher undergraduate courses and general research in the Faculty, though the allocation of second, third and fourth year courses between ECF/A and ECF/B remains to be decided. ECF/C will be used for research activities in the Civil and Mechanical departments.

Operating costs for ECF are covered for the most part out of general Faculty funds, though research users do pay for their resource usage (eg. CPU time, pages printed).

All of the ECF computers will be running the UNIX operating system (UNIX is a trademark of Bell Laboratories). At present this is version 4.1 Bsd (Berkeley systems distribution); a University of California at Berkeley adaptation of UNIX.

UNIX was originally developed at Bell Labs at the end of the 1960's, and has since become very popular, especially in research and academic environments. It provides a very flexible computing environment, due (amongst other things) to a hierarchical organization and consistent treatment of data.

Several programming languages are available on the system, for example C, Pascal (Berkeley) and Fortran (F77). C is the language in which most of the system software and utilities are written. (Real programmers don't use anything else).

Students busy at terminals in SF1012

Due to the size of the classes taught using ECF, access will be provided from two sites. The SF1012 terminal room has 40 IBM 3101 terminals. Another 40 Lanpar XT100 terminals will be installed in the renovated mailroom in the Engineering Annex (EA109). Both locations will have a 600 line per minute printer. SF1012 should be open in buliding hours (ie. approximately 8am-11pm weekdays), while the Annex will be open 24 hours a day (some people are owls). All terminals will be connected through a digital switch so any of the machines can be accessed from any terminal.

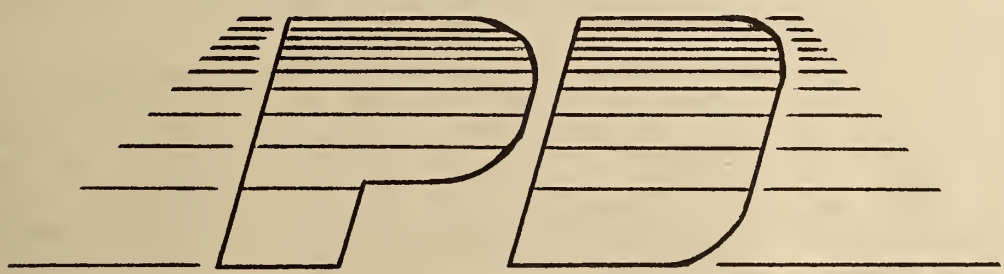
In addition to these two terminal rooms, a few terminals will be set up in each department to facilitate access to ECF. Remote access to ECF via modem is also allowed, so that students with their own terminals or home computers can dial in at any time.

Last year students were working in a very restricted environment on the system, primarily due to a lack of reference with respect to student behaviour and needs. Students using the facility this year will enjoy more priviliges than did those last year.

Hear ye frosh!! (seriously folks, this applies to everybody): As sprouting engineers, you should always know your responsibility towards others; for now that means the university environment. The ECF is a vast improvement over the antiquated keypunches used in the past year (just ask any of the 3rd and 4th year students). Don't misuse the facilities we have been (physically) fighting to get for so many years.

ECF is run by a couple of cuddly guys (once you get to know them), namely Jack Gorrie as manager, and Phil Poulos as chief programmer. Their lair is GB155 (just opposite the Registrar's office).

The plans outlined for ECF in this article are still under discussion and thus are not finalized (ie. subject to change without notice). We appreciate the help and cooperation extended by Jack Gorrie to make the most complete information available to you!



YOU and YOUR FUTURE

—professionals from Bell Canada talking about requirements for engineering employment, both summer and full-time

—information on the field of telecommunications

—question period to follow

—free coffee and donuts

Friday, October 28
12-1 pm in SF1105

presented by the Professional Development Committee

Engineering Society News:

Engineering Job Search

This is just a brief note from your employment committee. I say 'yours' because you are a member and there is a meeting for all members on Thursday, October 6 at 12:15 pm in Eng Soc. If you want to know how to get a job, find out how to use the placement centre (or just how to find it), or anything else, come to this meeting. I would like to discuss some new ways of trying to show companies that we have superior students, facilities and charisma. I would love to discuss your ideas.

Now a word about the UCPA forms that you are filling in right about now. I cannot stress enough the importance of the career goals and personal remarks sections. You must spend some time and consideration deciding what to write in these areas. If you want the job, your career goals will match the company's position and requirements. The firm does not want to hire someone who will be dissatisfied and restless in the job. They want to find someone who will be happy and make them happy (or at least successful). Do you want some suggestions on how to fill this out? Drop a message in the employment mailbox in Eng Soc and I will speak to you any time.

Hope to see everyone at the meeting.

Lynette Fairweather
Employment Chairman

SAC Update

The Student Administrative Council (SAC) has been active over the last month providing U of T students with a wide array of services. Here is a brief list of the SAC activities which should be of special interest to the only group on campus that SAC looks up to — the engineers.

The full-time SAC pub in the Sid Smith Addition is now open Monday through Saturday from 7:00 pm and its success has been beyond many people's wildest expectations. Fulfill an artsci's fantasy by being the first engineer he or she meets at this unique pub!

The downtown radio station has just undergone a management reorganization so now is the perfect time to join. Many engineers might be interested in the technical aspects of radio, but also needed are people interested in production (no experience necessary). If you want more information about U of T Radio contact the station directly or leave your name and phone number in the SAC mailbox in the Engineering Society.

SAC is organizing a conference to discuss problems with the Canadian Federation of Students (CFS) and make recommendations for its improvement. For more information drop by the

Spotlight On: Your Eng

You are a member of the Engineering Society (Eng Soc for short). That might come as a shock to you but in fact every full-time undergraduate engineering student belongs to the Society. Not only are you welcomed to every Eng Soc meeting (the next meeting is Thursday, October 20) but there are also many standing and special committees of interest to all students. These committees — all described below — welcome your organizational help or your presence at their events.

Academic Affairs

This committee was set up just last year so this year will set many precedents. Its responsibility is to consider policy on academic standards and practices regarding admissions, awards, curricula, exams, facilities, rules and fees. Joining will give you a chance to directly influence your education.

Blue and Gold

This committee is responsible for Society spirit events. They coordinate such things as the Chariot Race, Godiva Week and attempt to coordinate the LGMB. The big Blue and Gold event this month is Homecoming, in particular the Homecoming float. There is presently no Blue and Gold Committee Chairman and a meeting is planned for today, Wednesday, October 5, at noon in Eng Soc to hold this election (only a class rep or SAC rep can hold this position) and then discuss plans for the float.

CCES

In 1985, U of T will be hosting the Congress of Canadian Engineering Students conference and this special committee has been formed to plan and organize this event.

Centennial

The Engineering Society will be celebrating its centennial in 1985 and planning is already underway. One of the major projects of this committee is the design of a human-powered vehicle that will break the world speed record. Their next meeting will be on Monday, October 17 at 5 pm in WB143.

Communications

All of the Society publications

Reports, Events and Issues

SAC office.

At the last board meeting SAC directors voted against having an October referendum asking students whether they wanted to pay higher fees to SAC. This referendum is bound to pop up in the spring so in the meantime you should decide whether you want to pay more for improved SAC services.

On a more pressing note, there is presently an open position for one SAC Director from Engineering. But, never fear, something is being done about it! The SAC by-elections are occurring today (October 5) and tomorrow and every engineering undergraduate can vote. Why not exercise this power?

Marc Seeman
SAC Rep

Faculty Council Highlights

The latest executive meeting of the Faculty Council was fairly routine. These meeting are attended by the deans (all five of them), the department chairmen, Faculty Council committee chairmen, the Eng Soc President and the Executive Faculty Council Representative (EFCR).

Highlights of the meeting were:

- the Dean says that this year's budget situation is "grim" (as if we didn't know). However, Bell Northern Research/Northern Telecom have donated $300,000 for the establishment

continued on page 14

Soc Committees

— that means the Handbook/Calendar, *The Book of Skule,* the *Toike Oike,* the *Tiny Toike* and *the Cannon* — are run by this committee. Writers, photographers and layout staff are always needed (no experience necessary).

Employment

This committee is designed to inform students of job prospects and openings in conjunction with the U of T Placement Centre. This year they are also attempting to improve the image of engineering students with employers. Find out more at the meeting Thursday, October 6 at 12:15 pm in Eng Soc.

First Year Committee

If you are a frosh, this committee is for you! The chairman will be selected from the first year class reps but every frosh can belong to the committee. Every year this committee builds a frosh chariot for the Chariot Race and runs various other events to help unify the class of 8T7.

Fourth Year Committee

Not for fourth years only, this committee organizes two major events for the graduating class: Grad Ball and the Kipling Ritual. The class of 8T4 should note that Grad Ball is scheduled for Saturday, March 17 so keep that evening open.

High School Liaison

Now that we are enjoying U of T engineering, it is natural to wish to advertise our faculty to high school students. This is the duty of this committee which expends particular effort for the Engineering Open House as well as arranging visits throughout the year.

Professional Development

In addition to social activities, the Society organizes events of technical interest to engineers. This committee is responsible for part of this task and holds seminars by outside speakers, sends delegates to engineering student conferences and coordinates U of T OEDC entrants. Their next event is a seminar concerning telecommunications on Friday, October 28 at noon in SF1105.

SAC

Engineering elects 6 directors to the Student Administrative Council (SAC) and as a group they represent the engineers viewpoint at SAC. Suggestions and comments from students are encouraged.

Social

This committee coordinates all Society social events including engineering pubs and the Cannonball. This month their effort is being concentrated on the Car Rally and Oktoberfest two great events to be held together for the first time on October 22.

Women's Committee

This committee is responsible for events of special interest to women in engineering. These typically include a Women's Dinner and a wine and cheese party with the possibility of arranging seminars by women engineers from industry.

Each month, *the Cannon* will feature reports from those committees which are hosting major events. All committee chairmen have mailboxes in Eng Soc and are open to suggestions and volunteers.

1984 Bridge Building Competition

Models Are More Than Toys

Don Grandy
UTCSCE Treasurer

The University of Toronto Student Section of the Canadian Society for Civil Engineering (UTCSCE Club) and the Department of Civil Engineering are pleased to announce their *Annual Model Bridge Building Competition*. Seeing the value of such an event, it has been decided to open the competition to all undergraduate engineering and forestry students. It is hoped that the competition will be a province-wide event.

The competition rules are included in this article. As is stated, teams of up to three members are permitted. Advisors are also permitted and may be arranged upon request. Testing of any prototypes can also be arranged if there are a large number of requests.

The judging and testing phases of the competition are tentatively scheduled for the weekend of March 5, 1984, so that other universities can attend. Cash prizes will be awarded to the winning and runner-up teams. The amounts have not yet been finalized; however, it is hoped that they will be in the range of $100 and $50 respectively. If you are interested in participating (individually or in a team) or in assisting in the administration of the event, drop us a line in the CSCE mailbox (GB 319A) or in the CIVIL 4 mailbox (Eng. Soc., SF B670). Please include your name, year, discipline and phone number. The success of this competition depends on your participation.

Bridge Competition Rules

1. Teams

Teams may be comprised of up to three (3) full-time undergraduate students.

2. Specifications

(a) Any type of glue and wood can be used.
(b) Only wood having a cross-section not greater than 3mm x 10mm can be used for any structural member except the roadway where the 10mm limit is removed.
(c) Each bridge is to consist of two spans, and a supporting pier 300mm high and not more than 50mm thick. The roadway is to have a clear width of 90mm and a clear height of 50mm. The road itself is to consist of material placed so as to leave no appreciable gaps between components and is to be at least 800mm long. The overall height of the bridge is not to exceed 500mm. All required dimensions and the support system to be provided by the organizers are illustrated below.
(d) Bridges are not to be coated in any way, eg. no paint, shellac or varnish.

3. Selecting the Winner

The winner will be decided on the basis of the marks obtained in four categories. The marks for the first two categories will be awarded by a panel consisting of three professional engineers who will assess appropriate penalty marks for any violations of the specifications. The winner of categories (a), (b) and (d) will receive the maximum permitted marks for that category.

(a) **Workmanship:** Up to 15 marks will be awarded for the quality of workmanship.
(b) **Aesthetics and Form:** Up to 15 marks will be awarded for the overall aesthetics and form of the bridge.
(c) **Prediction of Failure Load:** Up to 10 marks will be awarded for the correctness of the loads predicted by the bridge designers, to be calculated as follows:

If Predicted Load (P_p) < Failure Load (P_f):

$$\text{Mark} = 10 - 10((P_p - P_f)/P_f)^2$$

If Predicted Load (P_p) $\geq$ Failure Load (P_f):

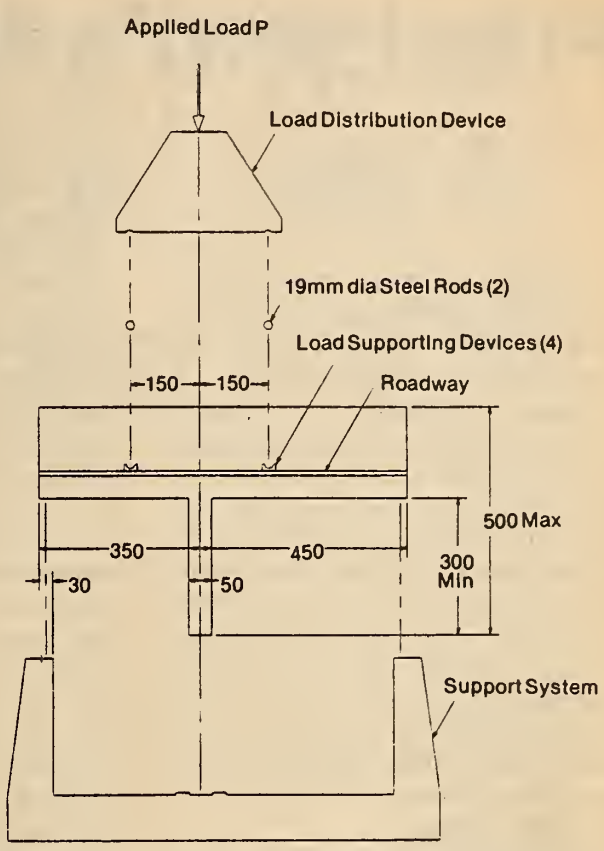
$$\text{Mark} = 10 - 5((P_p - P_f)/P_f)$$

(d) **Strength:** Up to 60 marks will be awarded for the relative load/weight ratio at failure.

Before the bridge will be permitted to enter the strength part of the competition, the bridge must support a simulated vehicle weighing 88N on the centre line of the roadway at locations selected by the judges. The vehicle will rest on four points which simulate two axles separated by 120mm with wheels 60mm apart. The base of the vehicle stands 25mm high on top of which scale weights will be placed.

The weight will consist of the bridge including the four load supporting devices and the central pier.

The load will be applied as shown in the illustration and will be increased until the bridge fails or is withdrawn, by the judges, from further loading. The single load is transformed into four equal point loads by means of the load distribution device. The four point loads will be applied to the bridge through 19mm diameter steel rods which will bear on the load supporting devices which must be attached outside of the 90mm wide roadway. Neither the width nor length of the load supporting devices is to exceed 25mm.



Loading Setup and Support System—Exploded View
(all dimensions in millimeters)

4. Faculty Assistance

It is the belief of the sponsors of this competition that it is an ideal opportunity to teach much about the nature of design and the role of analysis in design. Thus, a faculty adviser for each team is permitted. However, the work involved in building bridges must be done by the students themselves. Faculty advisers are expected to act as advisers only.

5. Testing

The date, time and location of the testing will be announced as soon as it is finalized. During our testing, a student representative from each bridge team will be invited to describe the design and construction of their bridge.

6. Prizes

Cash prizes will be awarded to the winning and runner-up teams. The amounts will be announced as soon as they are finalized.

7. Disqualification

Any violation of the competition rules may constitute an immediate disqualification requiring the immediate withdrawal of the entry and/or the rescission of any prize winnings.

The Homecoming Committee of the Engineering Society

The Student Administrative Council,
the Department of Athletics and Recreation & the U of T. Alumni Association

present,

HOMECOMING 83

Saturday October 15th

with

Spoons

and Special Guests

Concert Hall
888 Yonge (at Davenport)
7pm–1am.

Tickets available at:
Engineering Stores
S.A.C.
Erindale Info Desk
Scarborough Student Union

NOW ON SALE

cfny fm
Video Road Show
the spirit of radio

"Held under the authority of a special occasion permit."

Labatt's

Tickets:
$10 in advance, $12 at the door

a RULE 3 presentation

President's Message

Ron McKenzie
Eng Soc President

Well September's over! We've survived Orientation and now we find ourselves preparing for the onslaught of midterms (what a horrible thought!). But there's always October to look forward to... Over the course of September the Engineering Society (affectionately known to one and all as Eng Soc) has been busy with class elections, social events and never-ending administrative duties. I would like to take this opportunity to welcome all new class reps to the Eng Soc and remind them that if they have any questions, just drop down to the Eng Soc offices.

October presents a 'whole new ballgame.' We're presenting two main events that shouldn't be missed:

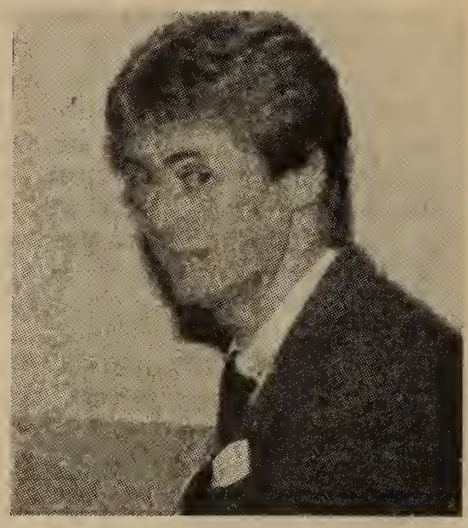
1) A Homecoming concert with the Spoons and CFNY video road show — this should be the highlight of 1983

2) An evening of uncontrollable dance and barley consumption (ie. beer drinking) Oktoberfest with George Kash and the Oktoberfest Express (kidnapped from Edelweiss at Ontario Place). Also, the Duke of Skule will be open every Friday night for videos, food and conversation.

In terms of current problems which I have encountered, I will give you an update on the action which has taken place. Overpopulation in a VAX community is one problem which left a lot of students angry and frustrated. This resulted because the second VAX scheduled to go into twenty-four operation at the beginning of September was late. To ease the fight for terminals, the Engineering Computing Facility (housed in SF1012) hours have been extended to allow for more open shop time. It is hoped that this will help the situation until the twenty-four hour access centre is opened.

On September 29 I hosted a Council of Presidents at U of T (COPOUT) meeting at which time input was requested from other faculties and colleges as to problems encountered with Campus Beverage Service (CBS). Also presented was a statement on the lack of pub space on the St. George campus for the professional faculties. Over the course of the summer, the Eng Soc executive passed a motion condemning the unavailability of pub space on the St. George campus. These areas need immediate action and we are working to try to develop and implement solutions.

The other area of grave concern is the Placement Centre. Over the course of the summer and early fall, Lynette Fairweather (Employment Committee Chairman) and I have been meeting with representatives from the Placement Centre to try to develop improvements which enhance the services they are providing to engineering students.



I would also like to thank the Engineering Alumni for their efforts on this matter and in presenting the Career Seminar on September 27. The event was very informative and offered the opportunity for fourth year students to meet with prospective employers on a one-to-one basis.

This message is intended to inform all students regarding what is happening in the Engineering Society. If you have any questions about these or any other matters drop down to the Eng Soc offices.

What's for Lunch? Music!

Once again, the Engineering Alumni Association will be sponsoring noon hour musicals in the Sandford Fleming Atrium this school year. During 1982-83, no less than eight stage bands and brass groups entertained from 12:30 to 1:00 pm on various days.

The first concert this year will be held in early October and will feature our new Skule Stage Band — not to be confused with our famous LGMB even though some of the musicians are the same. Other scheduled events will feature stage bands from Whitby High School, Williams Secondary School and Etobicoke High School.

A special occasion will be held on December 2, in Convocation Hall when our band, with Malcolm McGrath (Civil 5T4 and Assistant to the Dean, Alumni Liaison) at the organ, will present a sing-along Christmas concert.

These events are open to everyone, so spread the word to your friend in other colleges and faculties.

best prices on campus at the

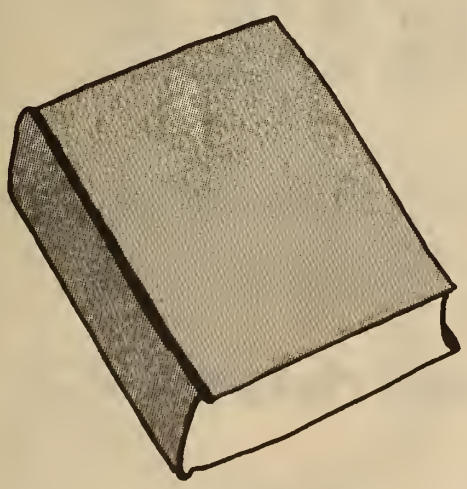
ENGINEERING STORES

SPECIAL BUYS:

Women's Golf Shirts $14.50
(with Engineering crest)

Uniball Pens (package of 2) $1.34

First Year Textbooks now in stock:



Applications of Linear Algebra
&
Calculus and Analytic Geometry

Deadline for textbook returns: Friday, October 7

continued from page 9

of a VLSI education program
- the Alumni funding goal is $300,000 and they have raised approximately half of this amount
- $225,000 has been spent over the summer on the new VAX780 computer for ECF. There are no provisions for fourth year students to prepare their theses on the computer
- several courses (non-technicals) are offering tutorials in French. This is a commendable first attempt at official bilingualism in this Faculty
- McMaster University is running courses to train TA's before they can work — the Teaching Methods and Resources Committee of Faculty Council is keeping an eye on this development for possible future implementation at U of T

Paul Shindman
Executive Faculty Council Rep

October Meetings

The Eng Soc Executive meeting will be held on Tuesday, October 11 at 5 pm in GB202 and the Full Council Meeting is scheduled for Thursday, October 20 at the same time and place.

All Faculty Council representatives are reminded of the regular meeting of Faculty Council on Thursday, October 13 at 2 pm in GB202.

Faculty Council reps who have labs or tutorials at this time may be excused without penalty.

Any interested student may attend the meeting, but you have to get a ticket from Maureen in the Faculty Office the week of the meeting.

Questionnaire Results

A questionnaire concerning interest in a variety of activities was circulated by Bruce Christie (VP Activities) in the spring of last year. The results have now been tallied and any interested student is welcome to read them. Copies will be posted on several bulletin boards and can be found in Eng Soc. Also, a meeting to discuss the events to be planned as a result of this questionnaire will be held Monday, October 11 at 1:00 pm in Eng Soc.

Financial Aid

Students who are in severe financial difficulty are reminded that Bursary application forms are available in the Faculty Office. If you are really in need of money you should fill one out — the worst thing that could happen is that they will turn you down.

This Friday, stop by for a cold one at

THE DUKE OF SKULE

(formerly The Sandford Fleming Pub)

Now open Fridays 4-9 pm

- **Music Videos**
- **Cheap Beer**
- **Dancing**

alll in the SF Cafeteria

Fans and Players Always Welcome

Engineering Athletics

Michelle Bolhuis
E.A.A. Publicity Director

Fresh Frosh and Engineering Rugby A cannot live by victory alone. They have a real need for what they consider to be the sweetest sound on earth — the roar of engineers! Come on out, join the cheering section and be part of a Skule win!

This new way of life can start small. Many sports are now in full swing and welcome fan support. These active leagues include men's football (touch and tackle), soccer, rugby and lacrosse while there are games in touch football, soccer and innertube waterpolo for women. Consult the schedules in Eng Soc to find a game that fits your cheering schedule.

Now that it's October, you might think you've lost your chance to join any fall team sports. Wrong, wrong, wrong. The following sports are just starting:

Hockey and Basketball (men's and women's)

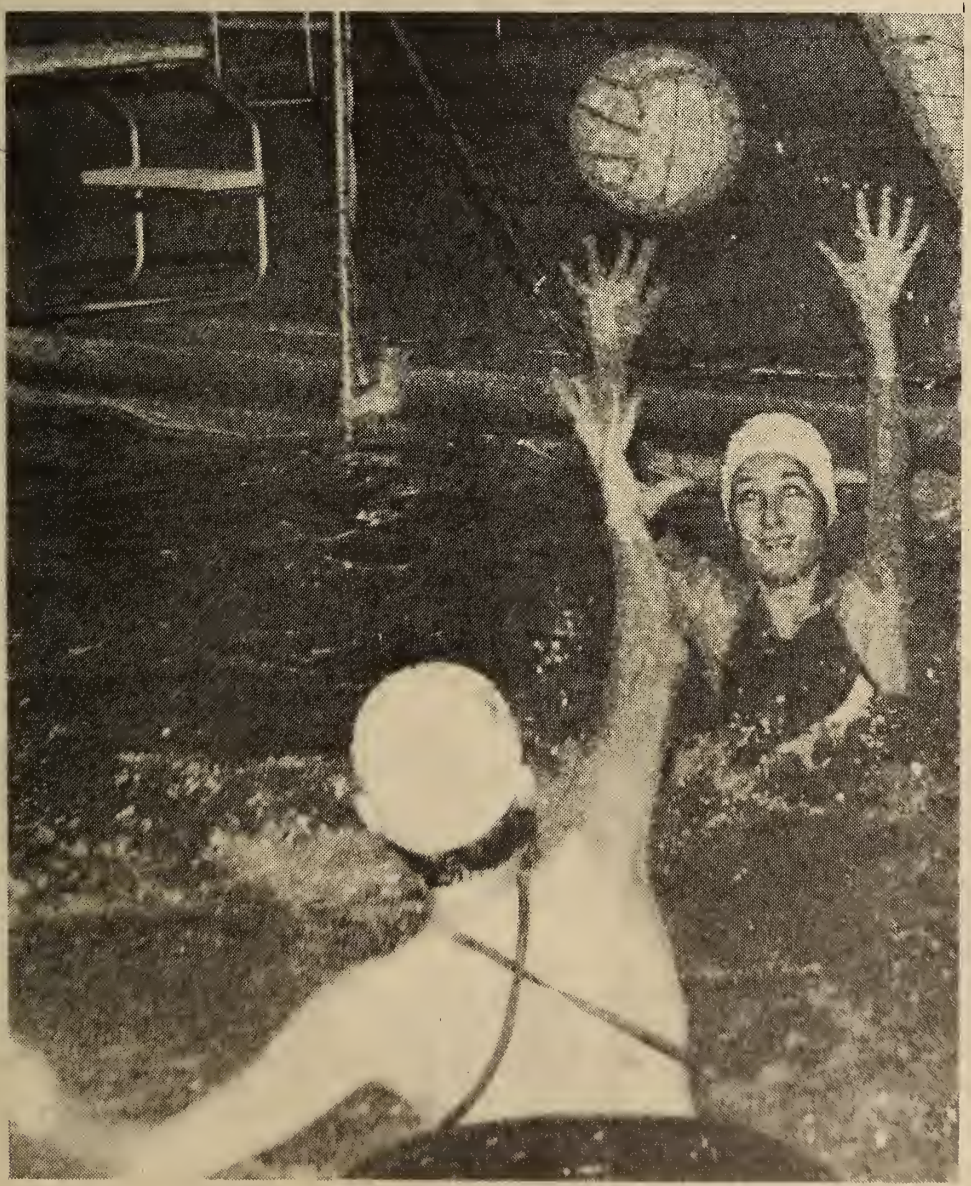
Broomball(co-ed)

For all unknowing frosh and unaware upperclassmen, there is an intermediate (read fun, recreational level) ice hockey league that has a majority of its entries from engineering class teams. Look for posters in all the engineering buildings announcing meeting dates and details plus sign-up lists in Eng Soc. Also, many of the teams listed above that started in September are still looking for new players to bolster their line-ups.

If all this competitive play is beyond you, there's still a chance at the fun. In addition to being a fan, why not enter the Engineering touch football tournament? This event is scheduled for Sunday, October 30 on Back Campus and is aimed at engineering classes (and clubs) who want a day of fun and relaxation. Your class rep will have more details soon. Watch for them!

Now for a word about awards —not the Oscars but one of ours, the Alumni Athlete of the Month. This award will be presented at the end of every month from October through March. It has been decided that an effort will be made to recognize not only the super athletes but also the sustaining members of teams: those who show up for practices, have a lot of Skule spirit and essentially keep the teams going. Any player manager or coach is welcome to submit names of deserving candidates to the E.A.A. Publicity mailbox in Eng Soc.

With this wide variety of alternatives, October is clearly the month to get involved in Engineering athletics.



Innertube Waterpolo: Stroke, Shoot and Score

ar·ma·dil·lo \ˌär-mə-ˈdil-(ˌ)ō\ *n, pl* **armadillos** [Sp, fr. dim. of *armado* armed one, fr. L *armatus*] : any of several burrowing chiefly nocturnal edentate mammals (family Dasypodidae) of warm parts of the Americas having body and head encased in an armor of small bony plates in which many of them can curl up into a ball when attacked

(a Synonym for a popular Canadian beer.)